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Report to the Chairman, Subcommittee on Environment, Energy and Natural Resources, Committee on Government Operations, House of Representatives

December 1986

HAZARDOUS WASTE

DOD Efforts to Preclude Disposal of Contaminated Property Need Improvement

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United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

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December 15, 1986

The Honorable Mike Synar
Chairman, Subcommittee on Environment,
Energy and Natural Resources
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

In response to your request, this report provides our evaluation of the Department of Defense's efforts to preclude the disposal of contaminated excess real property. The report contains recommendations to the Secretary of Defense. The views of responsible officials were sought during the course of our work and are incorporated where appropriate.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of its issuance. At that time, we will send copies to the chairmen of other concerned committees; the Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; the Director, Office of Management and Budget; and other interested parties upon request.

Sincerely yours,

for Bill Thurman

Frank C. Conahan
Assistant Comptroller General

Executive Summary

Purpose

Hazardous wastes can pose a threat to human health and the environment. They can pollute ground and surface water, contaminate soil, and be released into the atmosphere. The Department of Defense (DOD) generates large quantities of hazardous wastes, some of which have contaminated federal property. If that property is later sold, the wastes can jeopardize public health and result in a liability to the government.

The Chairman, Subcommittee on Environment, Energy and Natural Resources, House Committee on Government Operations, asked GAO to review DOD's actions to preclude the disposal of contaminated excess real property.

Background

Federal property management regulations require agencies to report contamination on excess real property to the General Services Administration (GSA). GSA officials told GAO that they rely on federal agencies to provide accurate information on known and potential contamination on excess properties. In addition, under federal law, agencies are responsible for decontamination of such property even if they no longer own it.

DOD has delegated responsibility for real property disposal to the Secretaries of the Army, Air Force, and Navy. Their policies require the identification and reporting of potential contamination on excess real property. GAO visited 19 of the 104 DOD installations that had excess real properties pending GSA disposal, as of December 1985.

Results in Brief

State environmental officials told GAO that conducting a records search and visual inspection are sufficient to identify potential contamination. Army policy requires that a records search and a visual inspection will be made and documented. Air Force policy requires, at a minimum, a records search. Current Navy policy does not specify what actions should be taken to identify potential contamination. The services reported excess real property that was potentially contaminated but, in most cases, information on the potential contamination was not provided to GSA or was incomplete. The inadequacy of this information is due, in some cases, to the poor quality of the services' inspections when the properties were declared excess.

Most excess real properties GAO reviewed are parcels of active installations and are sometimes located in the vicinity of the installations' potential hazardous waste sites. Possible contamination migration from

these sites may be affecting excess real property; however, the services' policies do not consider such effects.

Principal Findings

Inadequate Documentation

Of the 19 DOD excess real properties GAO reviewed, only one installation had conducted records searches and visual inspections to identify potential contamination on excess real property. Eleven of the installations had conducted either records searches or visual inspections. GAO was unable to determine what actions had been taken to identify whether real property was contaminated on the remaining seven installations.

The services' requirements for reporting contamination and providing certification on the condition of the real property vary. Also, the documentation was not updated. Thirteen of the 19 properties were declared excess prior to the issuance of the services' most recent hazardous waste reporting requirements. Disposal documentation for many of the properties had not been updated to meet current certification requirements.

Potential Contamination

There is potential contamination on 7 of the 19 properties. Two of the installations were aware of the potential contamination prior to reporting the property excess but provided incomplete information to GSA. The remaining five installations became aware of potential contamination while the excess real properties were in the disposal process. Only two of these installations subsequently reported the potential contamination to GSA. The accuracy of the information provided in the reports to GSA, in some cases, depended on the quality of the actions taken by the installation to identify potential contamination.

Hazardous Waste Sites in Vicinity of Property

At six installations, there are hazardous waste sites in the vicinity of the excess property. At four of these installations, GAO was told by state environmental officials that migration of contaminants from these sites may affect the excess real property.

Only one installation reported the location of the adjacent potential contamination to GSA.

Recommendations

GAO recommends that the Secretary of Defense

- direct the services to require that both records searches and visual inspections be performed and documented, mutually agree to and use consistent criteria in the identification of potential contamination and certification of excess real property, and update the disposal documentation for excess real properties still in the disposal process to conform with current requirements;
- emphasize to the services the importance of disclosing to GSA potential contamination on the excess property identified through records searches and visual inspections, actions taken to confirm the extent of contamination, and plans for any necessary decontamination; and
- direct the services to require in their disposal policies and fully disclose to GSA evaluations of any potential contamination migrating from hazardous waste sites in the vicinity of the excess property.

Agency Comments

GAO discussed its findings with agency program officials during the course of its review, but did not obtain official DOD comments on its report.

Contents

Executive Summary		2
Chapter 1 Introduction		8
	Overview of Hazardous Waste Legislation	8
	Generation of Hazardous Waste by DOD	9
	Federal Real Property Disposal Procedures	9
	Objectives, Scope, and Methodology	10
Chapter 2 Services' Identification Efforts Are Poorly Documented, and Certification Requirements Vary		12
	Better Documentation Is Needed	12
	Services' Certification Requirements Vary	13
	Most Disposal Documentation Has Not Been Updated	15
	Conclusions	17
	Recommendations	18
Chapter 3 DOD Is Declaring as Excess Potentially Contaminated Real Property		20
	Excess Real Property Is Potentially Contaminated	20
	Quality of Identification Efforts Is Questionable	23
	Conclusions	24
	Recommendation	24
Chapter 4 Excess Real Property Is in the Vicinity of Potential Contamination		26
	Nearby Contamination May Affect Excess Real Property	26
	Conclusions	27
	Recommendation	28
Appendix	Appendix I: List of Installations Visited	30
Tables	Table 2.1: Documented Actions to Identify Potential Contamination	13
	Table 2.2: Certification Requirements	13

Table 2.3: Chronology of the Disposal Process as of November 14, 1986 16
Table 3.1: Potential Contamination on Excess Real Property 20
Table 4.1: Potential Hazardous Waste Sites in the Vicinity of Excess Real Property 26

Abbreviations

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DDT	dichloro-diphenyl-trichloroethane
DOD	Department of Defense
EPA	Environmental Protection Agency
GAO	General Accounting Office
GSA	General Services Administration
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
TSCA	Toxic Substances Control Act

Introduction

National concern has grown in recent years over the threats hazardous wastes pose to human health and environmental quality. Hazardous waste can pollute valuable ground and surface waters, contaminate soil, and be released into the atmosphere. As the public has become more aware of these threats, there has been a corresponding increase in demands that contamination resulting from past improper use and disposal of hazardous waste be cleaned up.

The Department of Defense (DOD) is a large generator of hazardous wastes and, as a result, some federal real property has been contaminated. If that property is later sold, the waste could jeopardize public health and result in a liability to the government. DOD currently has a program for identifying and cleaning up formerly owned real property contaminated by hazardous wastes.

Overview of Hazardous Waste Legislation

Over the last decade, the Congress has enacted major legislation concerning the management and cleanup of hazardous wastes. The Resource Conservation and Recovery Act (RCRA) of 1976 provides for regulatory controls over the generation, transportation, treatment, storage, and disposal of hazardous wastes. RCRA was amended in 1984 to provide, among other things, for a comprehensive regulatory program for underground tanks that store petroleum and hazardous substances, which can contaminate groundwater.

The Toxic Substances Control Act (TSCA) of 1976 restricts the manufacture, processing, distribution, and use of polychlorinated biphenyls (PCBs). PCBs are toxic synthetic chemicals that are used for various purposes, such as fire resistance in electric transformers. PCBs have been associated with adverse health effects.

The Environmental Protection Agency (EPA), citing the Clean Air Act of 1970, classified asbestos as a hazardous air pollutant in 1978. EPA mandated work practices to be followed when buildings containing asbestos material are demolished or renovated to minimize the release of asbestos fibers into the atmosphere.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as "Superfund," provides for the cleanup of hazardous waste sites by the party that owned or operated a site or generated or transported hazardous substances that contaminated a site. This liability does not terminate when the property is sold to another party. CERCLA was reauthorized in 1986 to require,

among other things, that EPA promulgate regulations regarding federal property sales or transfers where hazardous substances may have been stored, released, or disposed of on the property.

Generation of Hazardous Waste by DOD

Various operations performed at DOD installations use many products that, when discarded, may become hazardous wastes. DOD has industrial manufacturing operations to repair, overhaul, and rebuild such items as tanks, aircraft, aircraft engines, and naval vessels. Other DOD operations that generate hazardous waste include motor vehicle pools, paint shops, fire departments, medical clinics, and laundries. Hazardous waste may also be a by-product of activities such as cleaning, degreasing, stripping, painting, or metal plating.

The types of hazardous waste found at DOD installations include, among others, solvents, PCBs, contaminated sludges, acids, cyanides, fuel, and oil. According to a DOD official, 470 of its 874 installations in the United States produced hazardous waste in 1985. There are approximately 25,360 underground storage tanks, but there are no aggregate data on the quantity of PCBs still in use or the number of buildings containing asbestos.

Federal Real Property Disposal Procedures

The General Services Administration (GSA) is responsible for ensuring that federal real property is utilized and disposed of in the most economic, efficient, and effective manner. The basic law controlling the disposal of real property, the Federal Property and Administrative Services Act of 1949, as amended, establishes disposal procedures.

When real property is identified as unneeded, it is classified as "excess" to the federal agency's needs. Under normal procedures, GSA reviews the needs of other federal agencies to determine if there is an alternative federal use for excess property. If another federal agency needs the property, title to it is transferred to that agency. Property excess to the needs of all federal agencies is classified as "surplus" and is disposed of outside the federal government.[1] Responsibility for custody of and accountability for excess real property remains with the agency declaring the property excess, pending its disposal by GSA.

Federal property management regulations establish certain requirements when a federal agency reports excess property to GSA that in its

[1]In this report, we refer to all excess and surplus property as excess property.

present condition is dangerous or hazardous to health and safety. The agency must provide information on the extent of contamination, plans for decontamination, and the extent to which the property may be used without further decontamination.

The federal agency that contaminates the property is responsible for funding and supervising its decontamination. GSA policy requires written certification that the facilities on the excess property are in compliance with federal regulations pertaining to the use, handling, storage, and disposal of PCBs.

DOD has delegated responsibility for real property acquisition, management, and disposal to the Secretaries of the Army, Air Force, and Navy. Each service is responsible for all expenses incurred in decontaminating its excess real property and for meeting GSA real property disposal regulations. Each service has developed its own real property disposal policy.

DOD has established a program to conduct environmental restoration on its formerly owned properties and designated the Army as the executive agent for the program. According to an Army official, there are currently about 7,000 sites that may require hazardous waste decontamination and/or correction of other unsafe conditions, such as from unexploded ordnance.

Objectives, Scope, and Methodology

On November 7, 1985, the Chairman, Subcommittee on Environment, Energy and Natural Resources, House Committee on Government Operations, requested that we review DOD's actions to preclude the disposal of contaminated excess property. Our objectives were to (1) identify what information DOD is providing GSA on the condition of its excess properties, (2) ascertain what is being done to determine the presence or absence of contamination on excess property, and (3) obtain the views of EPA and state environmental agencies on the adequacy of the actions taken by the installations.

We reviewed GSA, DOD, and the services' regulations and policies for identifying and reporting potential hazardous waste contamination on excess real property. We discussed them with appropriate DOD and service officials in real property and environmental offices. We also interviewed GSA realty specialists to ascertain what information they look for when they review excess real property reports and obtained information on DOD properties.

We visited 19 of 104 DOD installations in the United States that had excess real property pending disposal by GSA as of December 1985. (See appendix I for a list of installations visited.) The installations selected represent each of the services, are geographically dispersed, and include hazardous waste generators.

We reviewed the excess property reports submitted to GSA for the properties we selected and supporting documentation and other pertinent records, reports, and correspondence from GSA.

We interviewed base personnel in the real property and environmental offices and examined files, reports, correspondence, and other pertinent data to ascertain what had been done to identify potential contamination on the excess property. We reviewed reports and other pertinent documents concerning ongoing efforts to clean up hazardous waste sites. We also inspected the excess properties and surrounding vicinities where possible.

In assessing the adequacy of actions taken to determine whether excess real property was contaminated, we discussed the results of our visits with state environmental officials.

Our review was made between December 1985 and August 1986, in accordance with generally accepted government auditing standards. The views of directly responsible officials were sought during the course of our work and incorporated into the report where appropriate. However, we did not obtain official DOD comments on this report.

Services' Identification Efforts Are Poorly Documented, and Certification Requirements Vary

Identification of hazardous waste contamination on excess real property prior to disposal minimizes the potential exposure to the public and reduces the federal government's potential liability. However, many installations in our review have not been documenting their actions to identify potential contamination. We also found that the services' documentation requirements for identifying potential contamination on excess real property varied and that disposal documentation for some installations had not been brought up to date to meet current requirements.

Better Documentation Is Needed

Officials from state environmental agencies told us that a records search and a visual inspection are adequate actions to take if they indicate that hazardous materials were not used on the property. A records search could indicate if activities on the property may have used hazardous materials in their operations. A visual inspection could find physical evidence that the area may have been used for generating or disposing of hazardous wastes.

Each service requires the installation commander to identify and report potential contamination on excess real property. However, we found only one installation, the former Bainbridge Naval Training Center, Maryland, where the disposal files documented that both a records search and a visual inspection had been made to identify potential contamination. At 11 installations, the disposal files indicated that records searches or visual inspections had been made. At the remaining seven installations, there was no documentation indicating what actions had been taken. Table 2.1 summarizes the documentation for the actions taken at each installation.

Table 2.1: Documented Actions to Identify Potential Contamination

	Installation	
Service	**Records search and/or visual inspection**	**Unable to determine**
Air Force	Andrews Charleston Hanscom Maxwell Shaw Travis	Almaden
Army	Meade Letterkenny Parks Volunteer	Belvoir
Navy	Bainbridge Jacksonville	China Lake Driver Gulfport Key West Yorktown

Services' Certification Requirements Vary

The services' specific certification requirements for hazardous waste identification vary, as shown in table 2.2. Air Force and Army policies require certification by the installation commander when there is no contamination on the excess real property. The Navy policy requires no such certification, and only the Army requires certification that there is no contamination on real property that is transferred to another service.

Table 2.2: Certification Requirements

	Army	Air Force	Navy
Contamination as defined by			
RCRA	No	Yes	No
CERCLA	Yes	Yes	No
TSCA	No	Yes	No
Specific concerns			
PCBs	Yes	Yes	No
Asbestos	Yes	No	No
Storage tanks	No	No	No

Army

Army policy, issued in May 1985, requires a determination signed by the installation commander of the kind or cost of decontamination or a statement that the property contains no known hazardous substances as

defined by CERCLA. This determination should be based on land use history, a visual inspection, a records survey, and other available information. Further, the commander must document whether friable asbestos,[2] or other hazardous substances are present, and if they are, develop plans for removing them.

Air Force

Air Force policy, initiated in March 1982, requires two documents from the installation commander when real property is reported excess to GSA. The first document, "Finding of No Significant Contamination," certifies that the excess property contains no known contamination that would restrict full and beneficial use by non-DOD activities. This document states that there is no contamination as specified by RCRA, TSCA, CERCLA, and implementing federal regulations. The certificate states that, at a minimum, the finding should be based on a records search. If the records search indicates the possibility of contamination, the commander must decide whether to decontaminate, retain, or declare the property excess with restricted uses.

The second document, a PCB certificate, states that either (1) there is an inventory of properly maintained, labeled, and inspected PCB equipment, and there is no contaminated soil, wastes, or unserviceable equipment on the property or (2) the excess property has not been exposed to PCB materials or equipment as indicated by a records search and an on-site inspection.

Navy

Navy policy, dated October 1983, requires a statement of contamination from the installation commander if the property is dangerous or hazardous to health and safety. The information should include the extent of such contamination, plans for decontamination, and the extent to which the property may be used without further decontamination. If no contamination is found, the Navy requires no certification attesting to this determination. The Navy policy does not specify actions to be taken to identify potential contamination or cite specific legislation for certifying the condition of the property.

[2]Material containing more that 1 percent asbestos by weight, that hand pressure can crumble, pulverize, or reduce to powder when dry.

Interservice Property Transfers

The services are not required to report to GSA the transfer of excess real property among themselves. However, the Army's disposal policy requires a statement to the acquiring service on the presence or absence of contamination.

We were told that base records are transferred to the new service when it accepts custody of the real property and that these records should contain information on the condition of the property. However, in an earlier report,[3] we found that portions of the former Hamilton Air Force Base, California, had been transferred from the Air Force to the Army, and the Air Force had not provided records on the condition of the land or its past uses. As a result, the hazardous waste cleanup effort proceeded without information on past uses of toxic and hazardous materials, known or suspected areas of contamination, or decontamination efforts.

Most Disposal Documentation Has Not Been Updated

The real property disposal process—from the time when an installation determines property is no longer needed until GSA disposes of it—usually takes several years. The 19 excess properties we examined had been declared excess prior to 1985. Table 2.3 shows when these properties were declared excess by the installations, when they were reported to GSA, and their current status in the disposal process. Some properties have been transferred to other federal agencies; others have been returned to the service that declared the property excess.

[3]Hazardous Waste: Status of Cleanup at the Former Hamilton Air Force Base, California, GAO/NSIAD-86-23BR, December 6, 1985.

Table 2.3: Chronology of the Disposal Process as of November 14, 1986

Installation	Date declared excess	Date reported to GSA	Status[a]
Air Force			
Almaden	3/80	1/81	Sold 4/86[b]
Andrews	8/83	5/84	Proceeding
Charleston	10/84[a]	2/85	Proceeding
Hanscom	9/84	5/85	Proceeding
Maxwell	5/84	9/84	Proceeding
Shaw	10/83	6/84	Returned 8/86
Travis	3/83	4/84	Returned 7/86
Army			
Belvoir	6/78	12/78	Sold 3/86
Meade	3/83	4/84	Sold 5/86
Letterkenny	10/83	3/85	Proceeding
Parks	6/83	2/85	Transferred 10/86
Volunteer	8/82	1/83	Sold 4/86[c]
Navy			
Bainbridge	1975	7/82	Returned 7/86
China Lake	7/71	1/81	Proceeding
Driver	8/82	1/83	Proceeding
Gulfport	8/81	5/85	Proceeding
Jacksonville	10/83	11/84	Transferred 6/86
Key West	4/73	5/83	Sold 9/86[c]
Yorktown	6/82[a]	1/83	Transferred 7/86

[a]According to agency officials.

[b]Pending completion of cleanup.

[c]Title has not been transferred.

Thirteen of the 19 installations we visited had declared their properties excess on or before their services' current hazardous waste identification and reporting requirements were issued. Bringing the disposal documentation up to date to meet current requirements ensures that properties are inspected specifically for hazardous waste contamination. The disposal documentation for the Army and Air Force properties was not updated to meet current requirements. We do not know if three of the Navy properties were updated because Navy policy requires a statement only when contamination has been found.

All five Army excess real properties in our review were determined to be excess prior to the Army's implementation of the May 1985 hazardous waste certification requirement. Before May 1985, the installation commander was required to identify the extent of contamination resulting from explosives, toxic materials, or other harmful sources. The disposal documentation for Army excess real properties we reviewed had not been updated to meet the current certification requirement.

Only one of the seven Air Force properties in our review had been declared excess before the current Air Force hazardous waste certification policy was initiated in March 1982. Before March 1982, Air Force commanders were required to report if the land had been contaminated by live bombs, artillery projectiles, chemical warfare, or radioactive material. Almaden Air Force Station, California, was declared excess prior to the current certification requirement, and potential contamination was subsequently identified. The disposal documentation for the Almaden excess real property had not been updated to meet the current certification requirement. If the disposal documentation had been brought up to date to meet current requirements, the potential contamination might have been identified sooner.

All seven Navy excess real properties we visited were declared excess in or before October 1983. At that time, policy required an environmental assessment of the consequences of the proposed disposal. Current Navy policy requires a statement only if there is contamination on the excess property. Because there were no statements on the presence or absence of contamination in the disposal files, we were unable to determine if documentation on the properties at the Yorktown Naval Weapons Station, Virginia; China Lake Naval Weapons Center, California; and Key West Naval Air Station, Florida, met current requirements. Navy officials told us that records searches and/or visual inspections were conducted. However, we did not find documentation that verified that these actions were taken.

Conclusions

The services have established requirements in an effort to ensure that excess real property is inspected for possible hazardous waste contamination prior to reporting the property to GSA. Army policy requires that records searches and visual inspections to identify potential contamination on the excess real property will be made and documented. Air Force policy states that, at a minimum, records searches should be conducted to certify the condition of the property. Navy policy requires statements only when property is contaminated and does not specify what actions

should be taken to identify potential contamination or cite specific legislation for certifying the condition of the excess property.

Even though the services have reporting requirements, their current disposal policies do not require that installation commanders will look for the same specific concerns regarding types of potential contamination, such as asbestos or PCBs. Reporting requirements also vary for interservice transfers. Only the Army disposal policy requires it to advise the receiving service of the presence or absence of contamination.

Thirteen of the 19 installations we visited had determined their properties to be excess prior to the services' issuance of their respective hazardous waste identification requirements. At the time the 13 installations had declared their properties excess, the services' policies did not specifically address hazardous waste contamination. In some cases, disposal documentation had not been updated to address current requirements.

Recommendations

We recommend that the Secretary of Defense direct the services to (1) require that both records searches and visual inspections be performed and documented, (2) mutually agree to and use consistent criteria in the identification of potential contamination and certification of excess real property, and (3) update disposal documentation for excess real properties that are still in the disposal process to conform with current requirements.

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DOD Is Declaring as Excess Potentially Contaminated Real Property

GSA is responsible for ensuring that federal property is used and disposed of in an effective manner. To do this, GSA officials told us they rely on the federal agency declaring the property as excess to provide accurate information on known and potential contamination on the property. At 7 of the 19 installations, potential contamination has been identified on the excess property. Only two of the seven installations informed GSA of the potential contamination.

Excess Real Property Is Potentially Contaminated

At 7 of the 19 excess real properties included in our review, there is potential hazardous waste contamination.[4] At two of the seven installations, the potential contamination had been found before the real properties were reported excess to GSA. However, the services did not report all of the potential contamination. At the remaining five installations, the potential contamination was found by the services after the properties had been reported to GSA. Only two of these installations subsequently reported the potential contamination to GSA. Table 3.1 summarizes the potential contamination on the seven installations.

Table 3.1: Potential Contamination on Excess Real Property

Installation	Potential Contamination
Almaden	Solvents, motor oil, fuel from underground storage tanks, transformers possibly containing PCBs.
Bainbridge[a]	Asbestos,[b] underground storage tanks, landfill with pesticides, contaminants from a fire-fighting training area and an oil separator pit, small quantities of hazardous wastes.
China Lake	Laboratory chemicals.
Driver	Gasoline from underground storage tanks.
Jacksonville	Asbestos.[b]
Meade[a]	Mercury, laboratory chemicals, sludge with heavy metals.
Travis	Gasoline and diesel fuel from underground storage tanks.

[a]Contamination found prior to reporting property to GSA.

[b]Confirmed.

Potential Contamination Found Prior to Reporting to GSA

At two installations, base personnel inspected the excess real property and found potential contamination. These properties were then reported to GSA, but excess reports contained incomplete and inaccurate information on the conditions of the property.

[4]The services have identified a potential threat to health or the environment through records searches or visual inspections, but the contaminants and their migration have not been confirmed.

Prior to reporting the former Bainbridge Naval Training Center, Maryland, to GSA as excess, Navy personnel had conducted a records search and site investigation in February 1982. The report noted that (1) transformers and capacitors containing PCBs on the excess property were in compliance with applicable regulations, (2) significant quantities of friable and nonfriable asbestos were present, and (3) pesticides had been disposed of in a landfill on the property. The report also identified a number of underground fuel tanks, small quantities of hazardous wastes, an oil separator pit, and a fire-fighting training station located on the excess property. The resulting status report recommended that these conditions be addressed in the excess report.

In July 1982, the Navy reported the Bainbridge property to GSA. In the report, the Navy stated only that the property complied with federal PCB regulations. Subsequently, at GSA's request for more information on the condition of the property, the Navy reported that it contained asbestos and a landfill with pesticides.

In April 1985, GSA requested the Navy's plans for corrective actions. The Navy removed all equipment containing PCBs and estimated that removal of the asbestos would cost about $16 million. In July 1986, the disposal of Bainbridge was discontinued at the Navy's request.

Prior to reporting as excess to GSA a sewage treatment facility at Fort Meade, Maryland, an Army official, in March 1983, identified potential contamination and recommended, among other things, (1) removing and analyzing the sludge for its chemical contents, (2) determining if mercury was present in the filters and, if so, removing it, and (3) removing laboratory chemicals. Fort Meade officials told us in April 1986 that these recommendations were followed. However, we found no documentation in the files to confirm the actions were taken. In addition, in July 1986, a Maryland Department of Health and Mental Hygiene inspector subsequently found some of the sludge and laboratory chemicals had not been removed. He was unable to determine if the mercury was present. According to the inspector, if the mercury is still there, it must be handled and disposed of as a hazardous waste.

Potential Contamination Found After Property Reported Excess

Five installations found potential contamination on excess real properties after they had been reported as excess to GSA. Only two of these installations, Almaden Air Force Station, California, and Jacksonville Naval Air Station, Florida, subsequently reported the potential contamination to GSA.

At Almaden, two Air Force environmental engineers found several drums of motor oil, solvents, paints, and unknown materials at several locations. They also noted buried tanks which they believe formerly contained diesel and fuel oil. In addition, they observed several transformers, which might have contained PCB-contaminated oil. The engineers' findings were provided to GSA by Air Force officials who recommended that the closing of the sale be postponed. GSA delayed the close of the sale of Almaden for 1 month, but we were told it was concluded on April 30, 1986, at the insistence of the buyer who stipulated that the federal government remove or contain any contaminants according to applicable laws and regulations.

At Jacksonville, asbestos was confirmed in one of the buildings on the excess property, and its presence was then reported to GSA.

At Driver Naval Radio Transmitting Facility, Virginia, a potential contamination site was found on the excess property during an installation-wide assessment of potential hazardous waste sites after the property had been reported as excess to GSA in January 1983. The assessment, completed in February 1984, noted that two leaking underground tanks containing gasoline had been removed in 1974. The amount of gasoline released at this site is unknown. However, because of the gasoline's toxic organic compounds and the potential for migration, the assessment recommended further study to analyze the contaminants and determine their migration paths. At the time of our review, soil and ground water samples were being taken at the site.

A Virginia Department of Waste Management official told us that preliminary data from the site indicate significant quantities of oil, grease, and lead in the soil. The Navy has not reported to GSA the potential contamination on the excess property. A Navy official told us he would recommend informing GSA of the potential contamination after testing was completed and the results were verified.

The excess report for the Driver property stated that the electrical transformer on the excess property contains PCBs and is properly labelled, exhibits no leakage, and is periodically inspected to ensure compliance with federal regulations. Our visual inspection on June 18, 1986, confirmed that the active transformer was labelled and there were no evident leaks. However, we also saw four empty transformers, which were being stored in the utility building on the excess property, and found 30 drums marked "PCB." We were told that the drums contained the PCB-contaminated oil drained from the transformers. Some of the

drums were dated April 11, 1986; others were unmarked. According to EPA regulations, PCBs may be temporarily stored. After 30 days, the facility must meet certain construction specifications, requiring a continuous curbing and plugged drains in the floor. The utility building did not have these required features.

A Navy official agreed that storing the drums of PCBs might cause contamination if the drums were accidentally punctured. As a result of our visit, Navy personnel removed the transformers and the drums on July 8 and 10, 1986, for disposal.

There are similar problems of potential contamination at Travis Air Force Base and China Lake Naval Weapons Center, California. At Travis, there are underground tanks that are potential sources of contamination. At China Lake, we were told that two laboratories had been located on the excess property and bottled chemicals had been disposed of near there.

Quality of Identification Efforts Is Questionable

Certification of the absence of contamination on excess real property is only as good as the quality of efforts to reach that determination. For example, at Fort Meade, the excess report to GSA included a statement that the land had not been used for the disposal, storage, or processing of PCBs. Our review of property records indicated that the Army subsequently determined that two of the three transformers on the excess real property were PCB contaminated. This information had not been reported to GSA.

We found that at Travis, Air Force officials had certified, under the current Air Force hazardous waste reporting requirements, that the excess real property had no significant contamination. However, a Travis official said that in response to the RCRA amendments requiring identification of underground tanks, Travis is contracting with a firm to locate all underground tanks and provide a plan for their removal. The official said that two tanks may still contain fuel. A California Department of Health Services official said that even though there had been no regulations pertaining to tanks when the property was declared excess, the tanks should have been considered sources of potential contamination.

A 1986 study conducted by GSA in the northeast also suggested that the identification of contamination on DOD excess property needs to be improved. This study noted that all equipment containing PCBs probably had not been identified. For example, GSA found that at the Army

Reserve Center in Hingham, Massachusetts, 2 of the 44 transformers were leaking. At GSA's request, the Army tested the contents of the transformers and identified 15 transformers that contained PCBs, including 1 of the 2 GSA found leaking. The Army initiated a cleanup of the spill area and plans to remove the remaining PCB items.

Conclusions

DOD reported excess real properties to GSA without advising GSA of potential contamination on them. In some cases, the services had been aware of the potential contamination before the properties were reported to GSA; in others, the potential contamination was found after the properties had been reported to GSA.

The accuracy of the information the services provide to GSA depends on the quality of the inspection. The services have, in some cases, conducted incomplete inspections when real properties have been determined to be excess and, consequently, have not accurately assessed the condition of the property. By not reporting potential contamination to GSA, the services may risk exposing the public to hazardous waste contamination and increasing the government's potential liability for future cleanups.

Recommendation

We recommend that the Secretary of Defense emphasize to the services the importance of disclosing to GSA the potential contamination on the excess property identified through a records search and a visual inspection, actions taken to confirm the extent of contamination, and plans for any necessary decontamination.

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Excess Real Property Is in the Vicinity of Potential Contamination

The services' policies require each installation to identify potential contamination on excess real property. Because excess real properties may be portions of active installations, they are sometimes located in the vicinity of potential hazardous waste sites that are being cleaned up. However, the services' disposal policies do not require an evaluation of the effects of possible contamination migrating from hazardous waste sites.

Nearby Contamination May Affect Excess Real Property

The services require installation commanders to identify and report potential hazardous waste contamination on excess real property, but do not require them to consider the proximity of other hazardous waste sites. Of the 19 excess properties in our review, 17 are portions of active installations, and 2 are base closures. The active installations have programs to identify and clean up hazardous waste sites.

We found that 6 of the 17 excess properties are located adjacent to or in the vicinity of (within about 1 mile)[5] potential contamination sites. These sites had been recommended for further investigation by the services as part of the installations' programs to confirm the existence of contamination and determine if it has migrated. Table 4.1 summarizes the potential contamination in the vicinity of the 6 properties.

Table 4.1: Potential Hazardous Waste Sites in the Vicinity of Excess Real Property

Installation	Potential Contamination
Air Force	
Andrews	Spill area: jet fuel.
Charleston	Fire protection training area: flammable industrial waste, fire-fighting agents (such as dry chemicals).
Hanscom	Filter bed: dichloro-diphenyl-trichlorothane (DDT), various unidentified wastes.
Army	
Volunteer	Industrial area: nitrate, chromium, copper, nickel, various metals, other pollutants.
Navy	
Key West	Mixing area: DDT. Transformer oil disposal area: PCBs. General refuse disposal area: volatile organic compounds, pesticides, PCBs, metals, cyanide.
Yorktown	Landfills: solvents, sludges, among other wastes. Explosive burning pit: pesticides, oil and grease, metals.

[5]EPA officials told us that about 1 mile is a reasonable distance for illustrative purposes, but the area of consideration depends on the particular characteristics of each locale.

At two of the six installations—Yorktown Naval Weapons Station, Virginia, and Volunteer Army Ammunition Plant, Tennessee—state environmental officials told us that it is unlikely that the potential contamination has affected the excess property. At the remaining four installations, state environmental officials told us that migration from nearby contamination on the active installations might have affected the excess properties and that more testing should have been conducted.

For example, at Key West Naval Air Station, Florida, the Navy plans to assess the potential long-term impact on the environment and human health of three sites within a mile of the excess property: a mixing area, where there were accidental spills of DDT; a transformer oil disposal area, where samples to detect PCBs will be taken; and a general refuse disposal and open-burning area, where monitoring wells will be installed to confirm the presence of volatile organic compounds, pesticides, PCBs, metals, cyanide, and other contaminants.

A Florida Department of Environmental Regulation official said that because of a high-water table and the proximity of potentially contaminated sites to the excess real property, some testing should be done to ensure it has not been contaminated.

Only one of the six installations—Hanscom Air Force Base, Massachusetts—had reported to GSA the location of the adjacent potential contamination. The excess report states that the property is adjacent to a former filter bed used to dewater sewage sludge. An installation-wide study that identified the potential contamination on the former filter bed detected the presence of DDT, tetraethyl lead, and various unidentified wastes, which indicated a potential source of ground water contamination.

The assessment recommended further monitoring. Although an Air Force environmental engineer stated that he believed there was no significant contamination on the excess property, a Massachusetts Department of Environmental Quality official told us that he would recommend further tests before the installation certified that the excess real property was not contaminated.

Conclusions

Active installations may have hazardous waste sites in the vicinity of the property being reported excess. Contamination could migrate to the property. We found that excess property reports do not always identify

these sources of hazardous waste, thereby increasing public health risks and the government's liability for future decontamination expenses.

Recommendation

We recommend that the Secretary of Defense direct the services to require in their disposal policies and fully disclose to GSA an evaluation of any potential contamination migrating from hazardous waste sites in the vicinity of the excess property.

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List of Installations Visited

Air Force	Almaden Air Force Station, California Andrews Air Force Base, Washington, D. C. Charleston Air Force Base, South Carolina Hanscom Air Force Base, Massachusetts Maxwell Air Force Base, Alabama Shaw Air Force Base, South Carolina Travis Air Force Base (Potrero Hills Annex), California
Army	Fort Belvoir, Virginia Fort George G. Meade, Maryland Letterkenny Army Depot, Pennsylvania Parks Reserve Forces Training Area, California Volunteer Army Ammunition Plant, Tennessee
Navy	Bainbridge Naval Training Center, Maryland China Lake Naval Weapons Center (Corona Annex), California Driver Naval Radio Transmitting Facility, Virginia Gulfport Naval Construction Battalion Center, Mississippi Jacksonville Naval Air Station, Florida Key West Naval Air Station, Florida Yorktown Naval Weapons Station, Virginia

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